

WHAT IS CLAIMED IS:

1. A method of removing contamination from a Fischer-Tropsch derived
5 hydrocarbon stream, the method comprising:
 - a) passing the Fischer-Tropsch derived hydrocarbon stream to a treatment zone;
 - b) providing an ion exchange medium within the treatment zone;
 - c) contacting the Fischer-Tropsch derived hydrocarbon stream with the ion
10 exchange medium within the treatment zone to remove contamination from the Fischer-Tropsch derived hydrocarbon stream, and
 - d) removing a purified stream from the treatment zone.
2. The method of claim 1, wherein the ion exchange medium in the contacting step
15 comprises a crosslinked, ion exchanging polymeric resin.
3. The method of claim 2, wherein the polymeric resin is a strong-acid exchange
resin.
4. The method of claim 2, wherein the polymeric resin is a styrene-divinylbenzene
20 copolymer.
5. The method of claim 2, wherein the ion exchange resin in the contacting step has
sulfonium functional groups.
- 25 6. The method of claim 1, wherein the ion exchange medium in the contacting step
is a clay material.
7. The method of claim 6, wherein the clay material is a 1:1 clay material.
- 30 8. The method of claim 7, wherein the 1:1 clay material is kaolinite.
9. The method of claim 6, wherein the clay material is a 2:1 clay material.

10. The method of claim 9, wherein the 2:1 clay material is selected from the group consisting of a smectite, a mica, and a vermiculite.
- 5 11. The method of claim 10, wherein the smectite is montmorillonite.
12. The method of claim 1, wherein the contamination comprises an inorganic component.
- 10 13. The method of claim 12, wherein the inorganic component comprises at least one element selected from the group consisting of Al, Co, Ti, Fe, Mo, Na, Zn, Si, and Sn.
14. The method of claim 1, wherein the contamination originates from upstream processing equipment.
- 15 15. The method of claim 1, wherein the contamination originates from a catalyst used to produce the Fischer-Tropsch derived hydrocarbon stream.
16. The method of claim 1, wherein the size of the contamination is such that the
20 contamination may be passed through a 1.0 micron filter.
17. The method of claim 1, wherein the contacting step is performed as a batch process.
- 25 18. The method of claim 1, wherein the contacting step is performed as a continuous process.
19. The method of claim 1, further including the step of filtering the Fischer-Tropsch derived hydrocarbon stream.
- 30 20. The method of claim 1, further including the step of distilling the Fischer-Tropsch derived hydrocarbon stream.

21. The method of claim 1, further including the step of passing the purified stream to a hydroprocessing step.

5 22. The method of claim 21, wherein the contacting step substantially avoids plugging of catalyst beds in the hydroprocessing reactor.

23. A method of removing contamination from a Fischer-Tropsch derived hydrocarbon stream, the method comprising:

10 a) passing a syngas to a Fischer-Tropsch reactor to produce a Fischer-Tropsch derived hydrocarbon stream;

b) filtering the Fischer-Tropsch derived hydrocarbon stream to produce a filtered hydrocarbon stream;

c) passing the filtered hydrocarbon stream to a treatment zone;

15 d) providing an ion exchange medium within the treatment zone;

e) contacting the filtered hydrocarbon stream with the ion exchange medium within the treatment zone to remove contamination from the filtered hydrocarbon stream;

f) removing a purified stream from the treatment zone; and

g) passing the purified stream to a hydroprocessing reactor.